

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
15 September 2005 (15.09.2005)

PCT

(10) International Publication Number
WO 2005/085578 A3

(51) International Patent Classification⁷: **G01D 5/14**,
G01B 7/00

[US/US]; 8230 S. Seabrook Lane, Littleton, CO 80120 (US).

(21) International Application Number:
PCT/IB2005/000482

(74) Agents: **GROSFILLIER, Philippe** et al.; C/O BUGNION S.A., Case Postale 375, CH-1211 Genève 12 (CH).

(22) International Filing Date:
25 February 2005 (25.02.2005)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/786,351 25 February 2004 (25.02.2004) US

(71) Applicant (for all designated States except US): **SOMFY SAS** [FR/FR]; 50, Avenue du Nouveau Monde, F-74300 Cluses (FR).

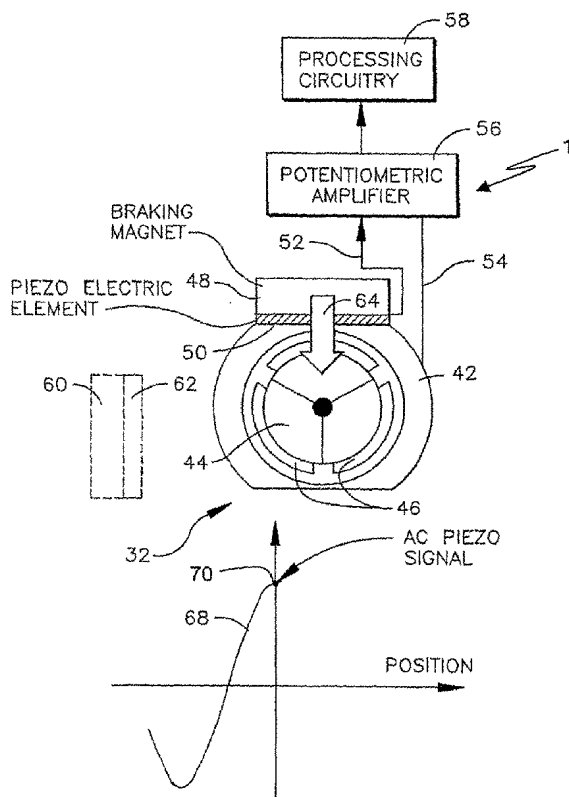
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CAVAREC, Pierre-Emmanuel** [FR/US]; 10808 Scripps Ranch Blvd. #105, San Diego, CA 92131 (US). **WALKER, Winston, Glenn**

[Continued on next page]

(54) Title: PIEZO-BASED ENCODER WITH MAGNETIC BRAKE FOR POWERED WINDOW COVERING



(57) Abstract: The device (1) comprises a frame (42) comprising a static magnetic pole (48), a movable member (44) relatively to the frame (42), the movable member (44) comprising a moving magnetic pole (46), the static magnetic pole (48) and the moving magnetic pole (46) being magnetically coupled in some position of the movable member (44), a piezosensitive element (50) so that the force due to the magnetic coupling between the moving magnetic pole (46) and the static magnetic pole (48) reacts on the piezosensitive element (50), and means (52, 54, 56, 58) for outputting an electric signal from the piezosensitive element (50), the signal being useful in determining the position and/or the speed and/or the direction of the movable member (44).



SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:
13 April 2006

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.